AMENDMENTS TO THE CLAIMS

1. – 2. (Canceled)

3. (Previously Presented) A process of amplifying Salmonella gene invA mRNA having a specific sequence, comprising

obtaining a sample comprising Salmonella gene invA mRNA

synthesizing cDNA employing an RNA-dependent DNA polymerase resulting in an RNA/DNA hybrid,

digesting the RNA of the RNA/DNA hybrid with Ribonuclease H to produce a single-stranded DNA,

producing a double-stranded DNA having a promoter sequence capable of transcribing RNA comprising said specific sequence or a sequence complementary to said specific sequence employing a DNA-dependent DNA polymerase, wherein said single-stranded DNA is the template for said producing and wherein said double-stranded DNA produces an RNA transcription product in the presence of an RNA polymerase, and

synthesizing cDNA comprising annealing an oligonucleotide primer pair consisting of the sequence of SEQ ID NO: 4 and SEQ ID NO: 23 to said RNA transcription product and amplifying said cDNA by employing said RNA-dependent DNA polymerase, where either primer includes an RNA polymerase promoter sequence at the 5' end.

4. (Canceled)

5. (Previously Presented) The process according to claim 3, which is a detection method, wherein said amplifying is performed in the presence of an oligonucleotide probe

which has a sequence that is complementary to at least a portion of the RNA transcription product, is labeled with an intercalator fluorescent pigment, and has a sequence different from said oligonucleotide primer pair, wherein changes in the fluorescent properties of the intercalator are measured.

6. (Canceled)

7. (Previously Presented) The detection method according to claim 6, wherein said probe for detecting said invA mRNA comprises at least 10 contiguous bases of SEQ. ID. No. 28 or its complementary sequence.

8. (Canceled)

9. (Previously Presented) The process of claim 3, wherein said annealing is at a temperature ranging from 35 to 50°C.

10. (Previously Presented) The process of claim 3, wherein said amplifying said cDNA is at a temperature ranging from 35 to 50°C.

11. (Previously Presented) The process of claim 10, wherein said amplifying said cDNA is at a constant temperature.

12. (Previously Presented) The process of claim 3, wherein the process is performed using a single enzyme having RNA-dependent DNA polymerase, ~~said~~ DNA-dependent DNA-polymerase, and ~~said~~ ribonuclease H activity.

13. (Previously Presented) The process of claim 12, wherein said enzyme is AMV reverse transcriptase.

14. (Currently Amended) The process of claim 3, wherein said RNA polymerase is a T7 phage RNA polymerase ~~or a SP6 phage RNA polymerase~~.

15. (Previously Presented) The detection method according to claim 5, wherein said intercalator fluorescent pigment is bonded to a phosphorus atom in the oligonucleotide probe through a linker.

16. (Previously Presented) The detection method according to claim 5, wherein said oligonucleotide probe is modified at the 3' hydroxyl group such that extension from said probe is inhibited.

17. (Previously Presented) The detection method according to claim 16, wherein said oligonucleotide probe is modified at the 3' hydroxyl group by addition of a glycolic acid.

18. (Previously Presented) The detection method according to claim 7, wherein said oligonucleotide probe is modified at the 3' hydroxyl group such that extension from said probe is inhibited.

19. (Previously Presented) The detection method according to claim 18, wherein said oligonucleotide probe is modified at the 3' hydroxyl group by addition of a glycolic acid.